SITE REQUIREMENTS

1. TREE RELOCATION

Tree to be relocated must be healthy, have aesthetic value, and be of suitable size, as determined by the City.

The City will conduct a pre-construction tree inventory. The tree inventory will determine the following information about each tree within the proposed construction limits: exact location, species, d.b.h., relative health, appraised value, maintenance needs, and any other special tree concerns.

One year before move, tree to be relocated, will be prepared and maintained as per Arborist's instructions.

Tree will be moved to an appropriate site taking in such considerations as the tree's health and other requirements such as: similarities in sun exposure from old site to new site, aesthetic attributes of the tree and suitability to the site, soil and drainage compatibility.

City or Landscape Architect shall be responsible for siting and layout of tree locations. Contractor will obtain approval from Landscape Architect before planting.

Contracted tree transplanter will be responsible for location of all utilities including over head wiring and the repair of the utilities if damaged.

Contracted tree transplanter shall be responsible for the complete process of the transplanting from ground breaking to staking including all labor.

1) Site Preparation:

   a) See Specifications in Site Preparation section

2) Digging of Trees:

   a) New planting hole will be dug before tree to be removed is dug. Sides of new hole shall be scarified.

   b) Dig only when soil is moist. Ball and burlap rootball if transported off site or stored.

   c) A mechanical digger will be allowed provided ball-size is as specified and machine can be used without damage to existing tree. Any other digging method used must be approved by the Certified Arborist and Landscape Architect. If trees are replanted immediately there is no need to ball and burlap rootball.

   d) If a mechanical digger other than a tree spade is being used, roots up to and including ¾" shall be cut by hand pruners and roots over ¾" shall be cut by a hand saw. Do not chop, tug, mutilate or otherwise destroy roots. Protect exposed roots at all times from desiccation by wind, sun, freezing, or other adverse environmental conditions.

   e) Ball sizes as follows: for each one inch of tree caliper measured 12 inches above ground line, the ball diameter shall be 10" with a minimum size being 18" diameter.

      Rootball depth as follows:

Rootball Size	Ball Depth
and smaller	2/3 rootball diameter

to 48”…….5/8 rootball diameter
and larger……..3 feet deep

f) Prior to digging of trees, apply WILT-PRUF to the drip point at the recommended rate if deemed necessary by the Landscape Architect or the City Landscape Staff.

g) After trees are removed, fill resultant holes to grade with surplus soil. Do not leave open holes.

3) Procedure for Moving Trees:

a) Transport trees to final locations with care. Tie back branches and protect bark with burlap to prevent damage from chafing by ropes or wires. Do not drag along ground. Keep rootball moist.

b) Plants shall be moved and transported by an experienced operator as approved by the City Landscape Staff.

4) Planting of Relocated Trees:

a) Plant to a depth so that the finished grade level of the tree, after settlement, will be the same that at which the tree was grown.

b) Do not pull burlap out from under balls. Remove burlap from top and sides of rootball if it will not affect the integrity of the rootball. Cleanly cut off all broken or frayed roots.

c) Backfill with native soil excavated from pits. Soil shall be backfilled in layers of not more than six inches and each layer thoroughly compacted by hand and water, and free of voids before next layer if put in place.

d) Work the backfill soil around and beneath the ball leaving no air pockets. Continue adding and tamping the soil until the hole is half full. Add water to partially fill the hole. Let the water soak into the soil and finish backfilling and create a watering well with backfill around perimeter of rootball.

e) Trees shall be staked immediately after planting as recommended in the National Arborist Association Standards for Pruning and Guying of Shade Trees. See staking standards.

f) Wire on cables shall be flagged with plastic pipe cover and surveyor’s tape immediately after installation.

g) Cover entire surface of pit with two inch layer of mulch within two days of planting. Keep mulch 3” to 6” away from trunk.

h) Upon completion of planting, water thoroughly. Apply water slowly so as to penetrate the entire root system and at a rate which will prevent saturation of the soil.

5) Maintenance:

a) Maintenance shall begin immediately after each tree is planted. Trees shall be watered, mulched, weeded, pruned, sprayed and fertilized as needed. Settled trees shall be reset to proper grade and position and watering well restored.

b) Tighten guys and cables as necessary. Staking to be adjusted as necessary.

c) Spray as necessary to control insects, fungus, and other diseases. All pesticide applications shall be submitted to the City for approval prior to implementation.
d) Notify the City of signs of nutrient deficiency and submit recommended program of fertilization.

e) Maintenance of relocated trees shall occur for one year after provisional acceptance.

6) Guarantee:

a) Guarantee of relocated trees shall occur for one year after provisional acceptance.

b) All trees shall remain in a plumb upright position. Contractor shall periodically inspect and maintain the guying system on trees, including safety flagging on cables.

c) Relocated trees that are seriously damaged, die, or decline during transport, transplant, shall be replaced with trees of the same species and equal size.

d) These damaged and destroyed trees shall be removed from the site, the stumps grubbed and the ground surface repaired with all costs borne by the Contractor.

e) The City will be reimbursed for the appraised value or cost of cure for trees damaged, killed or that show signs of significant decline within a three year period after the completion of construction. If the City is deprived of the use and/or enjoyment of the property during the time of restoring the property to near its former condition, the property City may be entitled to additional compensation as determined by negotiation or appropriate legal action.

2. TREE PROTECTION GUIDELINES

1) A City Arborist or a Certified Consulting Arborist is to review all aspects pertaining to the preservation of trees. If a Certified Consulting Arborist is to be contracted, this Arborist is to be mutually agreed on by the Contractor and by the City.

2) The Arborist will conduct a pre-construction tree inventory. The tree inventory will determine the following information about each tree within the proposed construction limits: exact location, species, d.b.h., relative health, appraised value, maintenance needs, and any other special tree concerns.

3) The Arborist is to over-see any pre-construction pruning. Trees with large dead branches should be pruned to make the construction site safe for all personnel. Some trees may require lower branch pruning to allow for the operation of construction equipment. Prohibiting the use of large dump trucks may be necessary in certain segments of the construction area. Pruning is to be performed by trained personnel under the supervision of the Arborist.

4) All contractors and sub-contractors, including all personnel, will be made aware that the trees are valuable and need to be protected. The general contractor is ultimately responsible for the protection and value of the trees.

5) The Arborist is to determine the tree protection zone(s). Chain link protection fencing at least 6' tall is to be constructed 360* around each tree or groups of trees. Single-strand wires, rope or plastic flagging is not considered an acceptable barrier. If chain link fencing is not an appropriate material, only the Arborist may approve an alternate material. Chain link fencing should have some type of screening material for aesthetics and debris retention purposes. Tree protection zones may be established by the dripline or branch spread for small trees. For larger spreading trees, a one foot radius for each inch of

tree diameter. Leaving the fence open on one side, moving the fence limits, or temporarily removing the fence and working around the tree is unacceptable.

6) The Arborist is to oversee any pre-construction root pruning. Prevention of tree root damage by construction equipment is a priority. To prevent roots being ripped by equipment excavating and/or grading, the roots are to be pruned 6" -12" closer to the tree than the construction limit. The Arborist may need to specify the use of equipment manufactured by the arboricultural industry for root pruning.

7) Construction materials or stockpiling fill are not to be stored over root zone area at any time. Parking of vehicles or construction equipment is not permitted over root zone area. Where installation of utilities is to disturb root system, auguring is to be done as recommended by the Arborist. The Arborist will determine if severing roots close to the trunk will make the tree subject to windthrow hazard.

8) Provisions are to be made to water designated trees during periods of drought. Periods of drought are defined as a time when there is less than one inch of rainfall during any 30 day period. Trees should be watered at a rate of 50 gallons per inch diameter. Application should be made so that the water slowly soaks into the ground and does not run off.

9) Trees that are to be preserved should be maintained during the year preceding construction to promote optimum health.

10) When backfilling, subsoil and fill material is unsuitable for root growth. All construction debris is to be removed and backfilled with clean topsoil as specified in soil section specifications. Mulch is to be applied within two days of backfilling. Two inches of mulch is recommended, keeping mulch 3" away from trunk and a minimum diameter of four feet. Backfill is to be replaced at the original root crown level. Grade changes may be recommended by the Arborist only.

11) If trees are damaged, killed, or show signs of significant decline within a three year period after the completion of construction, the City will be reimbursed for the appraised value or cost of cure for the trees.

12) If the City is deprived of the use and/or enjoyment to the property during the time of restoring the property to near its former condition, the property City may be entitled to additional compensation as determined by negotiation or appropriate legal action.

3. PRUNING SPECIFICATIONS

1) All work shall be done in a professional manner under the direction of the Project Manager and shall conform to all state and federal laws and regulations.

2) The Certified Arborist shall be bonded and licensed with the State of Washington and subscribe to ISA standards and ANSI Z133.1.1979 unless otherwise stated.

3) The work shall be scheduled and coordinated through the City Senior Gardener between 6am and 4pm Tuesday through Friday.

4) The Certified Arborist shall furnish all labor, materials and equipment needed.

5) No spurs or irons are to be used climbing unless the tree is to be removed.

6) All cuts shall be made clean with pruner or saw at nodes or crotches beyond the collar and BBR while exercising caution not to bruise or tear bark.

7) Tools and equipment shall be maintained and operated in a safe professional manner; those used on infected trees will be disinfected to prevent translocation of disease.

8) While maintaining the shape of the tree within the aesthetic balance of the landscape, dead and competing branches shall be removed. Diseased wood is to be removed as appropriate.

9) All debris resulting from pruning shall be removed from the site. The area beneath each tree shall be swept clean before moving to the next tree.

10) The Certified Arborist shall be responsible for any damage incurred to City property by the pruning operation.

11) Warning devices, barricades, cones, ground personnel and other necessary precautions shall be taken by the Certified Arborist to provide for the protection and safety of persons and vehicles in the area.

12) Authorization, supervision and inspection of the work will be provided through the City Senior Gardener. The Certified Arborist shall conform to the standards, techniques and judgment of the City. The Certified Arborist reserves the right to refuse circumstances considered unsafe.

4. SITE PREPARATION

1) Drainage Requirements For All Plantings:
   a) Ensure that all areas are free draining prior to planting. Excavate pits to test for drainage. Fill with water. If pit drains clear of water within 2 hours, it is acceptable to follow the planting details on plans. If pits are not free draining, submit method of drainage for review.

2) Grading:
   a) Grade sub-surface to achieve a uniform surface relative to the finish grade, or as indicated in the details.

   b) It shall be the General Contractor's responsibility prior to any landscape work to do all cutting and filling necessary to provide a proper subgrade, removing from site, all general debris, woody material, roots, concrete, and stones larger than 1-1/2" diameter.

   c) Establish survey grids in field corresponding to drawings and indicate required depth of cut or fill. Grade to uniform levels or slopes between points where grades are noted on drawings. The Landscape Architect or Engineer shall have final approval of rough grades and may supervise revision in the field.

3) Soil Preparation For Shrub beds:
   a) Excavate and remove 12" below grade and then prepare existing soil. Rip, disc, scarify, or till subgrade to a depth of six inches. Use heavy mechanical equipment if required to attain full six inch depth. Heavy equipment use to be approved by the Landscape Architect or the City Landscape Staff. Fourteen inches of planting soil shall be thoroughly mixed into the tilled subgrade. Remove from site, all general debris, woody material, roots, concrete, and stones larger than 1-1/2" diameter within 6" of the surface. Use additional planting soil and to bring the elevation of the finished elevations noted on the plans.

4) Soil Preparation For Lawns:
   a) Prepare existing soil. Rip, disc, scarify, or till lawn areas to a depth of six inches. Use heavy mechanical equipment if required to attain full six inch depth. Heavy equipment use to be approved

by the Landscape Architect or the City Landscape Staff. Six inches of turf mix (see soil specs) shall be applied on top of the tilled subgrade. Remove from site, all general debris, woody material, roots, concrete, and stones larger than 1" diameter within 6" of the surface.

5) Finish Grading:
   a) The Landscape Contractor shall be responsible for bringing lawn and planted areas to finish grades as indicated on drawings. Remove all concrete, rocks, rubble, roots and debris larger than 1-1/2" on a side from within 6" of the surface.

6) The finish grade for lawns shall be flush with curbs, paved areas, site furniture, or other site transitions.

5. SOILS

1) Before delivery of soil, the contractor must furnish the Landscape Architect or City with a written report from a recognized, certified soil laboratory. The report shall include soil analysis and recommendations for amendments suitable for ornamental landscape and/or turf areas. The contractor will coordinate with the Landscape Architect or City in meeting optimal levels of soil nutrition for healthy plant growth. This will include a pathological report to identify pests detrimental to the health of the plants. The report will include: fungus/bacterial disease identification; nematode count/soil; soil/water fungi detection or other tests as directed by the Landscape Architect and the City. These tests will be required if the soil has not been sterilized. The contractor will be required to amend the soil on site as directed by the Landscape Architect or the City at the cost of the contractor.

2) The soil is to be delivered to the work site only when it is not saturated, muddy or frozen.

3) Topsoil for Lawns:
   a) Lawn area to be sand based, from standard washed builders sand, containing 10% - 15% organic matter from compost.

   b) Total nitrogen 0.25% minimum

   c) pH range 5.5 - 7.5.

4) Planting Soil:
   a) Shall be a mixture of 50% compost and 50% builders sand (washed) by volume. Any other soil mixture must be approved by the City.

5) Compost:
   a) Compost shall be a well decomposed, humus-like material derived from the decomposition of organic matter. The compost shall have an earthy odor, shall be free of viable weed seeds and other plant propagules (weed seed test sample to be taken from 2" to 8" below the surface of the pile), shall have a moisture content such that there is no visible free water or dust produced when handling the material, and shall be free of manufactured inerts.

   b) In addition, compost shall have the following physical characteristics:
      i) Equal parts of three types of perennial rye grass
      ii) Shall be screened using a sieve no finer than 7/16" and no greater than ¾".
      iii) Shall pass a standard cress test for seed germination (90% germination compared to standard).
      iv) Shall have a pH from 5.5 to 7.5.
      v) Shall have a maximum electrical conductivity of 5.0 mmhos/cm.
      vi) Shall have a maximum carbon to nitrogen ration of 40:1.

vii) Shall be certified by the Process to Further Reduce Pathogens (PFRP) guideline for hot composting as established by the United States Environmental Protection Agency.
viii) Shall be produced at a permitted solid waste composting facility (Health permit, DOE storm water permit, PSAPCA facility and equipment registration.

c) Acceptable product is Cedar Grove "Pure Compost" or approved equal.

6. LAWN

1) Examination of Site:
   a) Prior to installation of lawn, verify the location of all electrical lines, utilities, and drainage systems. Take precaution not to disturb or damage sub-surface elements. Contractor shall make repairs to damaged utilities and site elements at own expense.

2) Installation:

   a) Notify the Landscape Architect of all subsurface drainage or soil conditions detrimental to growth or survival of lawn.
   b) All lawns must have automated irrigation (see Irrigation Section for Specifications).

3) Preparation of Seeding Surface:
   a) Prior to final grading and raking of seeded surface ensure that soil profile is free draining, dry, and that the subgrade has been compacted to 85% to ensure that no soil settling will occur.
   b) After completing soil preparation measures as found in Site Preparation and Soils Specification, rake out entire area to be seeded with lightweight grade rakes and remove all raked debris. Approved mechanical raking methods may be utilized prior to hand raking but not as a substitute. Ensure that all debris is removed as specified and that the surface is smooth, free draining, contains no low or high spots, and follows the described or illustrated contours on the grading
   c) Rake fertilizer into surface. Apply fertilizer at rates determined by laboratory soil analysis.
   d) Compact surface with a manual or mechanical roller in two directions at right angles to each other. Sprinkle seeded surface prior to each rolling. Roller to be minimum 3'0" width steel drum specifically for the purpose of rolling lawn areas.
   e) Finish grade shall be flush with curbs, paved areas, site furniture, or other site transitions

4) Seeding for General Lawns:
   a) Seed lawn areas at the rate of six pounds per 1,000 square feet.
   b) Sow half of seed at right angles to the first sowing. Lightly rake to cover seed and compact by rolling. Water as required to maintain moist soil to a depth of at least four inches
   c) Apply fertilizer at rates determined by laboratory soil analysis.
   d) Produce a close stand of grass within 60 days after seeding. Approximately 21 days after germination, the soil shall be retested by the same soil laboratory and amendments applied as recommended. Reseed barren areas as originally specified.

5) Recommended Grass seed mix: Certified quality seed shall meet the following
   a) 100% perennial rye grass - 3 way blend
      i) Equal parts of three types of perennial rye grass
      ii) 0% weed seeds
   b) 90 -95% germination rate
   c) inert matter not to exceed 1.5%

6) Example of grass seed mix:

REQUESTED	*KIND*	*PURE SEED IN MIX*	*GERM*	*ORIGIN*
a). 34.00%	AFFINITY PER. RYEGRASS	33.72%	92.00%	OR.

b). 33.00% SECRETARIAT PER. RYEGRASS 32.46% 92.00% OR.
c). 33.00% NIGHTHAWK PER. RYEGRASS 32.64% 92.00% OR.

OTHER CROP SEED: 0.05 INERT MATTER: 1.17% WEEDS: 0.00%
BAG WEIGHT: 50 LBS NET DATE OF TEST: 01/01/97
NOXIOUS: NONE FOUND
AMS 690

7) Hydroseeding:
   1) Notify the Landscape Architect and City not less than 24 hours in advance of seeding operation for approval of grade before seeding.
   2) Accomplish seeding with a hydroseeder that utilizes water as the carrying agent, and maintains a continuous agitator action that keeps seed and fertilizer mixed in uniform distribution until pumped from tank. Maintain pump pressure for a continuous nonfluctuating system stream of solution.
   3) Apply seed, fertilizer and mulch at the following rates:
   4) Seed - 240 pounds per acre
   5) Fertilizer as directed by Landscape Architect or City as determined from soil analysis.
   6) Mulch (Silva-Fiber) - 1,000 pounds per acre. Dyed green to facilitate inspection of placement.
   7) Produce a close stand of grass within 60 days after seeding. Approximately 21 days after germination, re-fertilize as determined by second soil test. Re-seed barren areas as originally specified.

8) Fertilizer:
   a) Fertilization of turf and planting areas shall be determined from soil analysis from a recognized, certified laboratory according to specific plant needs.

   b) A “typical” turf area should be fertilized with a product that includes a variety of major nutrient sources; slow release (70-75%) nitrogen and micronutrients necessary for good plant health.

   c) Apply fertilizer to dry turf and water lightly after application. Avoid mowing soon after application to prevent particle pick up damage.

   d) Seasonal adjustments shall be made to fertilizer nutrient ratios under direction of the City Landscape Staff.

9) Maintenance and Protection of Seeded Areas:

   a) Protect against harm from wind, trespassing and damage. Provide safeguards and protection to insure the lawn area is not damaged prior to approval and opening to public. Provide continuous plastic web fencing (or other enclosure as approved by City) at lawn perimeter with stakes at 6’-0” o.c. minimum. Maintain fence/enclosure in place until second lawn mowing. Replace damaged portions of lawn immediately.
   b) Lawn areas shall be maintained by Contractor until accepted by City. Maintenance shall consist of: Mowing, reseeding - consistent with original seed blend, weeding, fertilization, repair of erosion damage, and other operations necessary for proper maintenance of the project. Mowing shall occur on a regular basis, as proscribed by City, by Contractor until final acceptance by City. If Contractor fails to do so, mowing will be done by City and charged to Contractor. If final acceptance is delayed, Contractor shall be responsible for additional mowing required for upkeep and maintenance of the site as determined by the City.
   c) After 90 days, apply fertilizer at rates determined by laboratory analysis.
   d) Mow and edge lawn at 1-1/2” each time grass has grown to a 2 inch height until final acceptance.
   e) Arrange watering schedule with the City Landscape Staff.

10) Inspection And Acceptance Of Lawns:
    a) Request for Inspection: Notify the Landscape Architect or the City Landscape Staff at least three days before anticipated inspection.
    b) Acceptance of Work: Upon completion of all repairs, the Landscape Architect shall verify provisional acceptance of lawns to the City Landscape Staff. Physical completion of lawns shall constitute the beginning of the guarantee period.

11) Guarantee Period And Final Acceptance:
    a) Duration of Guarantee:
        i) Lawns shall be guaranteed for a period of one year from the date of Physical Completion to be in good, healthy, and flourishing condition. Replace defective materials noted and upon completion of replacements, final acceptance will be verified in writing by the Landscape Architect with approval from the City Landscape Staff.

7. MULCH

1) Choice of type of mulch to be determined by the City Landscape Staff.

2) All mulch shall be applied to new shrub beds to a uniform depth of two inches.

3) All mulch shall be applied three inches from tree and shrub trunks.

4) Acceptable mulch products:
    a) Bark - shall consist of fir and or hemlock, shall be of a medium fine texture (=1 ¾"), the moisture content shall not exceed 22%, it shall not contain weed seeds or sawdust, resin, tannin, wood fiber or other compounds detrimental to plant life.
    b) Gro-Co - a composted organic material composed of fir/hemlock sawdust and biosolids. Distributed by Sawdust Supply.
    c) Steer-Co - a composted organic material composed of sawdust and composted steer manure. Distributed by Sawdust Supply.
    d) Cedar Grove Compost - well decomposed humus -like material derived from the decomposition of organic matter.

8. PLANT SPECIFICATIONS

1) Select trees and plants that are appropriate to the site. Price includes delivery to site. Avoid trees having aggressive root structures that may damage adjacent structures. Avoid trees near pedestrian areas that provide a winter haven for nuisance urban birds.

2) Examination:

    a) Inspection of plant material at the supplier's nursery site may be made prior to award of the purchase contract. Upon award, the Landscape Architect or the City Landscape Staff will inspect identified plant material to confirm quality and quantity offered. Supplier will notify City immediately if the condition of plant material fails as a result of infestation, fire, flood, drought or other circumstance which has compromised the quality of the plant material ordered. The Landscape Architect or the City Staff may inspect the material 10 days prior to delivery to confirm that plants selected meet the quantities and quality standards established. Plant lots must be clearly segregated from stock and have full identification tags including botanical name and certification of size and condition at times of inspection.

b) Upon the determination of the City, one sample of each specified plant may be required to be provided to the City to assure acceptable quality standards. All plants delivered shall meet the size, quality and character of the representative material as established by the City.
c) If proof is provided that any plant specified is not available, a proposal may be considered for the use of the nearest equivalent size and variety with a corresponding adjustment in the Contract price. This provision shall not relieve the supplier of obtaining the specified materials in advance.

3) Quality Assurance:

a) Supplier shall comply with sizing and grading standards of the American Association of Nurserymen ANSI Z60.1 and the American Joint Committee on Horticultural Nomenclature.
b) Plants shall be nursery grown in climatic conditions similar to Seattle.
c) Plants must be typical of their species, variety and cultivar with standard, well developed branching and a vigorous fibrous root system.
d) Plants shall be of premium quality, free of weeds, pests, diseases, injury, or general defects.
e) Pruning wounds with a diameter of more than one inch must show vigorous callus on all edges. Trees shall not be pruned within six months prior to delivery.
f) Balled and burlapped plants shall be provided with a firm rootball per AAN Standards. Ball with firm, natural balls of soil, wrap firmly with biodegradable burlap and secure for shipment.
g) Containerized grown stock shall be grown a minimum of six months in the finished container. Root bound material is not acceptable.
h) Native material shall be nursery grown for a minimum of two years.
i) Plant material furnished shall be at the size specified, larger material is acceptable at no additional cost upon approval of the City. Larger plants shall not be cut back to meet size requirements.
j) Shipment:
k) Plants shall be dug, loaded and transported with care to insure protection against injury. Plants shall not be stacked to result in damage to tissue or held in shipment for a period detrimental to plant health.
l) Plants shall be provided cover in shipment to prevent wind burn or whipping. Antidescicants are recommended for plants in leaf but they shall not supplant enclosed cover for shipment.
m) Stock shall be handled by rootball or container only, not the trunks, stems or tops of plants.
n) Inspection certificates required by law shall accompany each shipment.
o) Plants damaged by the supplier during delivery shall be rejected.

4) Approval:
a) Plants delivered to the site which are not those previously approved by a the Project Manager, that are without labels, that are not certified to have met the conditions and specifications addressed above shall be rejected.
b) Plants may be rejected at any time prior to planting if they are found to be deficient in meeting the specifications. Rejected plants shall be removed and replaced immediately from the site by the supplier. The City may assess a penalty of 25% against the price of rejected plant material which cannot be replaced in a timely manner. This requirement stems from the light construction schedule and the programs developed to celebrate and promote the completed project.

9. PLANT INSTALLATION

1) General:
a) All imported plants shall be installed immediately upon their delivery to the project site.

b) If planting is delayed more than 24 hours after delivery, set balled and burlapped plants on the ground, well protected with soil or wet bark. Adequately cover all roots of bare root material with

soil or wet bark. Protect rootballs from freezing, sun, drying winds or mechanical damage. Water as necessary until planted. Do not heel in plants for more than one week.

2) Requirements:
   a) Contractor shall furnish imported plant materials, move and/or remove on-site plants specified, and install all plant materials indicated on the drawings, provide maintenance and care of plant material, cleanup, and provide guarantee per specifications.
   b) All plant material shall be transported to planting locations with care to prevent damage. Branches shall be tied back, as necessary, and bark protected with burlap from chafing by ropes at all times. No plant material shall be dragged along the ground without proper protection of the root and branches.
   c) The specified materials shall be installed in accordance with the arrangements shown on the drawings. Planting of trees and shrubs shall be accomplished after all major grading has been completed. The landscape contractor shall be responsible for bringing lawn and planted areas to finished grades. Remove all concrete, rubble, roots, debris, and rocks larger than two inches.

3) Project/Site Conditions:
   a) Bareroot Stock: Plant bareroot stock from October to February only under approval by the Landscape Architect or the City Landscape Staff.
   b) Balled and Burlapped Stock: Plant during periods that are normal for work, as determined by season, weather conditions and accepted practice.
   c) Do not plant when ground is frozen or excessively wet.

   d) All plants shall be placed to bear the same relation to finished grade, after settlement, as originally borne to natural grade.

   e) Notify the Landscape Architect and the City Landscape Staff, in writing, immediately of all subsurface drainage or soil conditions that Contractor considers detrimental to growth or survival of plant materials.

4) Planting Bed Preparation And Soil Installation:
   a) New Installation : Prepare soil for beds per Soils and Site Preparation Specifications. Native soil shall be used where possible. If native soil is not acceptable per the Landscape Architect or the City Landscape Staff, then an Imported soil, per specifications in Soils, may be used. It should be incorporated a minimum of 6 inches into the existing substrate. Do not allow any ponds to form in beds. Remove surplus excavated material from site.
   b) Existing Planting Beds with Partial Plant Replacement : Remove plants shown for removal. Add imported soil at this area, at depressions and low areas to raise grade to paving level, sloping areas to drain. Incorporate imported soil to a minimum depth of 6”.

5) Tree And Shrub Installation:
   a) Locations of all trees and shrubs shall be inspected and accepted by the Landscape Architect or the City Landscape Staff prior to planting. Indicate the location of each tree with a two inch square by two foot long wood stake or wire stake with flag. Place containerized or balled and burlapped shrubs in proposed locations for observations by the Landscape Architect or the City Landscape Staff prior to planting. Begin planting after approval of locations by the Landscape Architect or the City Landscape Staff.
   b) Procedure for planting:
      i) Apply (6-10-8) fertilizer to backfill at one pound per inch caliper of tree.
      ii) Trees and plants shall be planted in holes twice the diameter of the rootball.
      iii) Add native soil to bottom of plant pit and tamp firmly to prevent settlement. Place plant in pit and remove binding of upper one-third of balled and burlapped stock and remove a minimum of

upper one-third of burlap. Care should be taken to remove excess soil to expose the crown of the tree or shrub.

iv) Fill planting pit to two-thirds depth and tamp with foot. Flood holes with sufficient water

v) After surplus water drains off, fill hole to finish grade with backfill. Form soil basin around each tree. Tamp soil firmly and add bark mulch, per mulch specifications. Stake trees and shrubs that may blow over.

vi) Remove all plant tags and flags after installation

6) Groundcover Installation:
   a) Place containerized plants in proposed locations for observation by the Landscape Architect or the City Landscape Staff prior to planting. An area of approximately 1,000 square feet should be laid out showing a typical configuration. Begin planting after approval of locations by the Landscape Architect or the City Landscape Staff.
   b) Clean ground cover areas of all extraneous material.
   c) Mulch after planting as per mulch specifications.
   d) Remove all plant tags and flags after installation

7) Disposal Of Waste Materials:
   a) Remove all plastic labels, materials, and synthetic burlap from planting pit, after plant is in place. Remove waste materials from site.

End of Section 5